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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,201	09/29/2000	Sanae Tagami	197893US0	1428

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

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DATE MAILED: 03/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

48-5

Office Action Summary

Application No.

09/675,201

Applicant(s)

TAGAMI ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8 and 10 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Organic compounds according to formulas 1-17 wherein at least one of X1 to Xi comprises an amine group or an alkenyl group (for compounds 1-16) and at least one of R5 to R16 comprises an amine group or an alkenyl group (for compounds 17 and 18).

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Applicant should elect one compound from the formulas numbered 1-17. Also, applicant should indicate if the at least one group of either X1 to Xi or R5 to R16 is an amine or an alkenyl group. Currently, claims 1-8 and 10 are generic.

3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

4. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with Fred Vastine on March 1, 2002 a provisional election was made with traverse to prosecute the invention requiring the species Compound 17 wherein at least one of R5 to R16 is an amine. Affirmation of this election must be made by applicant in replying to this Office action.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

8. The drawings are objected to because the figure headings are in Japanese. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

9. Claims 5 and 6 are objected to under 37 C.F.R. § 1.75(c) as being in improper form, because: 1) a multiple dependent claim should refer to other claims in the alternative only, and 2) a multiple dependent claim cannot depend from any other multiple dependent claim. Claims 5 and 6 are dependent on claim 3, which is a multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 5 and 6 have not been further treated on the merits.

Allowable Subject Matter

10. The species elected by applicants in the provisional election, Compound 17 wherein at least one of R5 to R16 is an amine, is an allowable species. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Because applicants' elected species has been searched and found to be an allowable species, the examiner has chosen Compound 3, wherein at least one of X1 to Xi is an alkenyl group, as the next examined species. A rejection based on the search and consideration of Compound 3, wherein at least one of X1 to Xi is an alkenyl group, follows:

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

13. Claims 1-3 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Nakatsuka et al. (JP 10-340782). Nakatsuka et al. disclose an organic electroluminescent element comprising a fluoranthene derivative shown as formula (1) in the patent (see col. 1). The Nakatsuka et al. formula (1) condensed ring surrounded by X1-X4 reads upon instant compound 3 wherein "a pair of adjacent groups represented by X1 to X20...may form a cyclic structure in combination" and "at least one of substituents represented by X1 to Xi, i representing a number of 12 to 20, comprises ... an alkenyl group" as recited by instant claims 2 and 10. The Nakatsuka et al. formula (1) compound is between electrodes per instant claim 1 (see abstract) and the organic compound can be used as a hole injection transporting component or a luminescent component per instant claim 3 (see abstract). Nakatsuka et al. teaches all elements of instant claims 1-3 and 10.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuka et al. (JP 10-340782). Nakatsuka et al. is relied upon as set forth

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above for the rejection of independent claim 1. Nakatsuka et al. teaches formula (1), which reads upon instant compound 3, is disposed as an organic layer in an electroluminescent device, but fails to teach the percentage by weight of the compound in the organic layer per instant claim 4. It would have been obvious to have selected a amount of compound to use in the organic layer to achieve a desired level of luminescence affected by the amount of luminescent compound used, because where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. Natatsuka et al. also fails to disclose the organic layer comprises both formula (1) and isomers thereof. An isomer of formula (1) is an obvious variant of formula (1). It would be obvious to one of ordinary skill in the art to incorporate formula (1) and isomers thereof with a reasonable expectation of success, because an isomer of formula (1) would be expected to perform the same hole transporting and luminescent functions as formula (1). In addition, because formula (1) is the same as applicants' compound 3, the wavelength properties cited in claim 8 are deemed to be inherent properties of formula (1) and isomers thereof. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have made a device as recited in instant claims 4, 7, and 8, because all limitations of these claims are generally taught by Nakatsuka et al.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (703)305-0788. The examiner can generally be reached Monday through Friday from 9:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703)-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-2351.

D.G.
March 15, 2002

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

